

## **Patent Abstracts of Japan**

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APPLICANT: MATSUSHITA ELECTRIC IND CO LTD;

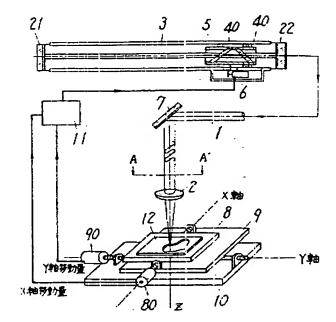
INVENTOR: OHARA TAKAFUMI;

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TITLE

LASER OSCILLATION DEVICE



ABSTRACT:

PURPOSE: To obtain an oscillation device enabling a cutting with high accuracy by setting up at least one linearly polarized light select-element arranged at a Brewster's angle on a laser optical axis in a laser oscillator and turning the select-element around the optical axis while maintaining the Brewster's angle.

CONSTITUTION: A cylindrical mechanism vessel 5 having a rotary function is disposed on an axis of resonance constituted by a total reflection mirror 21 and a transmission mirror 22 as an output coupling mirror positioned at both ends of a laser oscillator 3. A polarized light select element 40 turning around a laser optical axis while maintaining a Brewster's angle to the optical axis is set up in the vessel 5, and the element 40 is turned by a motor 6. Laser beams 1 from the oscillator 3 are irradiated to a workpiece 12 through an external optical mirror 7 and a condenser lens 2 while controlling a rotation-angle input to the motor 6 by a control system 11 while X and Y tables 8, 9 on an XY driving base 10 are moved, and the quantity of the movement is fed back to the control system 11.

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